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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,637	10/04/2006	Takeshi Kanazawa	L9289.06179	9702
52989	7590	12/24/2008		
Dickinson Wright PLLC James E. Ledbetter, Esq. International Square 1875 Eye Street, N.W., Suite 1200 Washington, DC 20006			EXAMINER	
			LEE, ANDREW CHUNG CHEUNG	
			ART UNIT	PAPER NUMBER
			2419	
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			12/24/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/589,637

**Applicant(s)**

KANAZAWA ET AL.

**Examiner**

Andrew C. Lee

**Art Unit**

2419

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
- Paper No(s)/Mail Date 7/16/2006
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This Office Action in response to the Application no. 10589637 filed on 7/16/2006 is entered.

Claims 1 – 5 are hence entered and presented for examination.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 7/16/2006 was filed, and the submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Specification***

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4, 5, the claims are very ambiguous. It is not clear where the preamble of the claims begins and ends, and where the main body for the claimed subject matters begins and ends.

Regarding claims 4, 5, the claims claimed as method claims in the very beginning of the claims, however, the claim language in the main context merely discloses the devices performing certain functions. It is not clear what is being claimed by the applicant — are the claims “a method” claims, or “an apparatus” claims. Clarification is required.

***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

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1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. **Claim 1 - 5** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 - 4 of U.S. Pub no. US 20070195799.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both present claims and co-pending application recited as indicated below:

Present/current application:10589637	Pub. No. US 20070195799
<p>1. A packet routing apparatus comprising: a receiver that receives a radio signal including packets; a detector that detects disconnection of a route for packet transfer; and a transmitter that, when the route for packet transfer is disconnected, transmits by broadcast a route search request to a destination of the packets and reports the disconnection of the route for packet transfer to a transmission source of the packets.</p>	<p>1. A packet routing apparatus for establishing a route for packet transmission and transmitting packets from a source apparatus to a destination apparatus by radio signals using a plurality of apparatuses, the packet routing apparatus comprising: a reception section that receives a radio signal containing packets and detects that communication with a communication apparatus directly transmitting the packets using radio signals, is disconnected; a control section that determines whether the packet routing apparatus is located on a side of a destination wireless terminal apparatus or a side of a source wireless terminal apparatus of the packets; and a transmission section that broadcasts a request signal for route repair to a destination communication apparatus of</p>

	<p>the packets when communication with the communication apparatus directly transmitting the packets using radio signals is determined to be disconnected and the packet routing apparatus is determined to be located on the side of the source wireless terminal apparatus.</p>
<p>2. The packet routing apparatus according to claim 1, further comprising: a controller that determines content of a received signal; and a route search packet processor that searches for a transfer route of packets, wherein: the receiver receives a radio signal including a route search request to a destination of the packets relayed by an apparatus that relays the packets, or a request for route reconstruction transmitted from a transmission source of the packets due to disconnection of the route for packet transfer; the controller distinguishes between the route search request to the destination of the packets relayed by the apparatus that relays the packets and the request for route reconstruction transmitted from the transmission source of the packets due to disconnection of the route for packet transfer; and the route search packet processor searches for a transfer route of packets when receiving the route search request to the destination of the packets relayed by the apparatus that relays the packets, and searches for a route of the packets to reconstruct when receiving the request for route reconstruction transmitted from the transmission source of the packets due to disconnection of the route for packet transfer.</p>	<p>1. A packet routing apparatus for establishing a route for packet transmission and transmitting packets from a source apparatus to a destination apparatus by radio signals using a plurality of apparatuses, the packet routing apparatus comprising: a reception section that receives a radio signal containing packets and detects that communication with a communication apparatus directly transmitting the packets using radio signals, is disconnected; a control section that determines whether the packet routing apparatus is located on a side of a destination wireless terminal apparatus or a side of a source wireless terminal apparatus of the packets; and a transmission section that broadcasts a request signal for route repair to a destination communication apparatus of the packets when communication with the communication apparatus directly transmitting the packets using radio signals is determined to be disconnected and the packet routing apparatus is determined to be located on the side of the source wireless terminal apparatus.</p>
<p>3. A packet routing apparatus comprising: a receiver that receives a radio signal including packets; a detector that detects disconnection of a route for packet transfer; and a transmitter that, when the</p>	<p>2. The packet routing apparatus according to claim 1, wherein: the reception section receives a radio signal containing the request signal for route repair; the control section determines whether or not the</p>

<p>route for packet transfer is disconnected, adjusts content of the search request so that the request looks like being made by the transmission source of the packets and transmits by broadcast a route search request to a destination of the packets.</p>	<p>request signal for route repair is for repairing a route to the packet routing apparatus; and when the request signal for route repair is for repairing the route to the packet routing apparatus, the transmission section broadcasts a request signal for route reestablishment to a source of the packets.</p>
<p>4. A packet routing method in a system where packets are transmitted to a wireless terminal apparatus as a destination via a plurality of wireless terminal apparatuses, wherein wireless terminal apparatuses relaying the packets monitor route disconnection, a wireless terminal apparatus detecting route disconnection transmits a route search packet to the wireless terminal apparatus as the destination of the packets and reports the route disconnection to a wireless terminal apparatus as a transmission source, wireless terminal apparatuses relaying the packets reconstruct a route for packet transmission according to the route search packet, and the wireless terminal apparatus as the transmission source reconstructs the route when receiving information of the route disconnection.</p>	<p>4. A packet routing method in a system where packets are transmitted to a destination wireless terminal via a plurality of wireless terminal apparatuses, wherein: a relay wireless terminal apparatus detects that communication with a wireless terminal apparatus directly transmitting packets using radio signals is disconnected; the wireless terminal apparatus detecting that communication is disconnected determines whether the wireless terminal apparatus is located on a side of a destination wireless terminal apparatus or a side of a source wireless terminal apparatus of the packets; the wireless terminal apparatus determining that the wireless terminal apparatus is located on the side of the source wireless terminal apparatus broadcasts a request signal for route repair to the destination wireless terminal apparatus of the packets; and when receiving the request signal for route repair, the destination wireless terminal apparatus of the packets broadcasts a request for route reestablishment to the source wireless terminal apparatus of the packets.</p>
<p>5. A packet routing method in a system where packets are transmitted to a wireless terminal apparatus as a destination via a plurality of wireless terminal apparatuses, wherein wireless terminal apparatuses relaying the packets monitor route disconnection, a wireless terminal apparatus detecting</p>	<p>4. A packet routing method in a system where packets are transmitted to a destination wireless terminal via a plurality of wireless terminal apparatuses, wherein: a relay wireless terminal apparatus detects that communication with a wireless terminal apparatus directly transmitting packets using radio signals</p>

route disconnection adjusts content of a route search request to the destination of the packets so that the search request looks like being made by the transmission source of the packets and transmits a route search packet to the wireless terminal apparatus as the destination of the packets, the wireless terminal apparatus as the destination receiving the route search packet transmits a response to the wireless terminal apparatus detecting the route disconnection, and a route for packet transfer is thereby recovered.	is disconnected; the wireless terminal apparatus detecting that communication is disconnected determines whether the wireless terminal apparatus is located on a side of a destination wireless terminal apparatus or a side of a source wireless terminal apparatus of the packets; the wireless terminal apparatus determining that the wireless terminal apparatus is located on the side of the source wireless terminal apparatus broadcasts a request signal for route repair to the destination wireless terminal apparatus of the packets; and when receiving the request signal for route repair, the destination wireless terminal apparatus of the packets broadcasts a request for route reestablishment to the source wireless terminal apparatus of the packets.
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***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1 - 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Toh (5987011).



**Regarding claim 1**, Toh discloses a packet routing apparatus (*Fig. 1, Fig. 2, Fig. 12*) comprising: a receiver that receives a radio signal including packets (*"destination mobile host" interpreted as a receiver; col. 4, lines 55 – 57*); a detector that detects disconnection of a route for packet transfer (*"a procedure for measuring the stability of the communications links; col. 4, lines 39 – 44, Fig. 11, element 84 "loss of radio connectivity"; col. 17, lines 24 – 39*); and a transmitter that, when the route for packet transfer is disconnected, transmits by broadcast a route search request to a destination of the packets and reports the disconnection of the route for packet transfer to a transmission source of the packets (*col. 17, lines 24 – 57*).

**Regarding claim 2**, Toh discloses the packet routing apparatus according to claim 1, further comprising: a controller that determines content of a received signal (*Fig. 9c, col. 15, lines 47 – 54*); and a route search packet processor that searches for a transfer route of packets (*col. 15, lines 11 – 35*), wherein: the receiver receives a radio signal including a route search request to a destination of the packets relayed by an apparatus that relays the packets, or a request for route reconstruction transmitted from a transmission source of the packets due to disconnection of the route for packet transfer (*"destination mobile host" interpreted as a receiver; col. 4, lines 55 – 57, "route Reconstruction (RRC) Phase"; Fig. 7a, Fig. 7b, col. 11, lines 35 – 65*); the controller distinguishes between the route search request to the destination of the packets relayed by the apparatus that relays the packets and the request for route reconstruction transmitted from the transmission source of the packets due to disconnection of the route for packet transfer (*"route discovery phase", Route Reconstruction (RRC) phase"*);

*col. 7, lines 65 – 67, col. 8, lines 1 – 14; col. 11, lines 35 – 65*); and the route search packet processor searches for a transfer route of packets when receiving the route search request to the destination of the packets relayed by the apparatus that relays the packets, and searches for a route of the packets to reconstruct when receiving the request for route reconstruction transmitted from the transmission source of the packets due to disconnection of the route for packet transfer (*col. 15, lines 11 – 35*).

**Regarding claim 3**, Toh discloses a packet routing apparatus (*Fig. 1, Fig. 2, Fig. 12*) comprising: a receiver that receives a radio signal including packets (*“destination mobile host” interpreted as a receiver; col. 4, lines 55 – 57*); a detector that detects disconnection of a route for packet transfer (*“a procedure for measuring the stability of the communications links; col. 4, lines 39 – 44, Fig. 11, element 84 “loss of radio connectivity”; col. 17, lines 24 – 39*); and a transmitter that (*“source mobile host” interpreted as a transmitter; col. 6, lines 47 – 59*), when the route for packet transfer is disconnected, adjusts content of the search request so that the request looks like being made by the transmission source of the packets and transmits by broadcast a route search request to a destination of the packets (*“a procedure for measuring the stability of the communications links; col. 4, lines 39 – 44, Fig. 11, element 84 “loss of radio connectivity”; col. 17, lines 24 – 39*)

**Regarding claim 4**, Toh discloses a packet routing method in a system where packets are transmitted to a wireless terminal apparatus as a destination via a plurality of wireless terminal apparatuses (*Fig. 1, Fig. 2, Fig. 12, col. 4, lines 34 – 51, col. 6, lines 47 – 59*), wherein wireless terminal apparatuses relaying the packets monitor route

disconnection (*"a procedure for measuring the stability of the communications links; col. 4, lines 39 – 44, Fig. 11, element 84 "loss of radio connectivity"; col. 17, lines 24 – 39*), a wireless terminal apparatus detecting route disconnection transmits a route search packet to the wireless terminal apparatus as the destination of the packets and reports the route disconnection to a wireless terminal apparatus as a transmission source (*Fig. 11, element 84 "loss of radio connectivity"; col. 17, lines 24 – 39*), wireless terminal apparatuses relaying the packets reconstruct a route for packet transmission according to the route search packet, and the wireless terminal apparatus as the transmission source reconstructs the route when receiving information of the route disconnection (*col. 17, lines 40 – 68*).

**Regarding claim 5**, Toh discloses a packet routing method in a system where packets are transmitted to a wireless terminal apparatus as a destination via a plurality of wireless terminal apparatuses (*Fig. 1, Fig. 2, Fig. 12, col. 4, lines 34 – 51, col. 6, lines 47 – 59*), wherein wireless terminal apparatuses relaying the packets monitor route disconnection (*"a procedure for measuring the stability of the communications links; col. 4, lines 39 – 44, Fig. 11, element 84 "loss of radio connectivity"; col. 17, lines 24 – 39*)), a wireless terminal apparatus detecting route disconnection adjusts content of a route search request to the destination of the packets so that the search request looks like being made by the transmission source of the packets and transmits a route search packet to the wireless terminal apparatus as the destination of the packets (*Fig. 11, element 84 "loss of radio connectivity"; col. 17, lines 24 – 39*), the wireless terminal apparatus as the destination receiving the route search packet transmits a response to

the wireless terminal apparatus detecting the route disconnection, and a route for packet transfer is thereby recovered (*col. 17, lines 30 – 68*).

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/  
Examiner, Art Unit 2419  
<12/18/2008:1Qy09>

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